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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,510	01/18/2005	Jorg Kuchen	KUCHEN ET AL I (PCT)	1985

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EXAMINER

HAUPT, KRISTY A

ART UNIT	PAPER NUMBER
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2876

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/521,510	Applicant(s) KUCHEN ET AL.	
	Examiner Kristy A. Haupt	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to Application 10/521,510 filed 18 January 2005.

Claims 1-26 are pending with claims 1, 19 and 23 being in independent form.

Claim Objections

1. Claim 21 is objected to because of the following informalities:

Claim 21 is dependent upon claim 29. There is no claim 29 in the application.

Also, claim 21 states "...by light having a wavelength of between 450 nm, preferably between 500 nm and 600 nm, preferably of 550 nm". The use of the word between in line 4 of the claim (between 450 nm) implies there is another range. However, applicant has not provided an ending range. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-7, 15-17, 19-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Slatter et al. EP 0 984 319 A1.

Slatter teaches:

With respect to claim 1:

- An image capturing apparatus with an image capturing unit (Abstract and Figures 2 and 3) and an image fitting surface (Abstract and Column 8, Paragraphs 0037-0038) wherein the optical axis of the image capturing unit is disposed at an angle α to a normal of the image fitting surface in a region in which the optical axis meets the image fitting surface and in which the normal traverses the image fitting surface (Column 8, Paragraphs 0037-0038 and Figures 1 and 2)

With respect to claim 2 and incorporating all limitations of claim 1:

- Wherein the angle is more than 2° , preferably more than 5° (Column 8, Paragraph 0038 teaches the object plane is at a 20° angle to the optical axis)

With respect to claim 3 and incorporating all limitations of claim 1:

- Wherein the angle is less than 50° or less than 35° , preferably less than 30° (Column 8, Paragraph 0038 teaches the object plane is at a 20° angle to the optical axis)

With respect to claim 4 and incorporating all limitations of claim 1:

- Wherein the image capturing unit comprises an angle of sight β of less than 30° , preferably of less than 15° (Column 8, Paragraph 0038)

With respect to claim 6 and incorporating all limitations of claim 1:

- Wherein the angle is at least half the size of the angle of sight of the image capturing unit, preferably at least the same size as the angle of sight of the image capturing unit (Figure 3 teaches angle of sight and optical axis are the same and Page 5, Paragraph 0037 – Page 6, Paragraph 0052)

With respect to claim 7 and incorporating all limitations of claim 1:

- Wherein an optical device is disposed between the image capturing unit and the image fitting surface (Figure 2 teaches objective lens (#21) is disposed between the capturing unit and the image fitting surface (Abstract))

With respect to claim 15 and incorporating all limitations of claim 1:

- A housing portions of which comprise a translucent material (Figure 2 teaches an objective lens (#21) where light can exit the camera body (#19))

With respect to claim 16:

- Wherein the translucent material is a reflection-reducing material, preferably an anti-reflection glass (Figure 2 teaches an objective lens (#21) where light can exit the camera body (#19))

With respect to claim 17:

- Comprising a positioning device (Abstract)

With respect to claim 19 and incorporating all limitations of claim 1:

- Wherein an image capturing unit is held obliquely relative to the display (Figure 3 teaches camera (#20) is at an oblique angle to the sheet of paper (#54))

With respect to claim 20 and incorporating all limitations of claim 19:

- Wherein the display is substantially placed onto an image fitting surface (Figure 3 teaches placing sheet of paper (#54) onto a desk (#58))

With respect to claim 23, an arrangement consisting of an image capturing unit and of a display:

- The optical axis of the image capturing unit is disposed at an angle α to the normal of the display (Figure 3 teaches optical axis (#22) is at an angle to the normal of the display (#54))

3. Claims 8-11 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slatter et al. EP 0 984 319 A1 in view of Seo US 6,036,095.

Slatter fails to teach:

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With respect to claim 8:

- Comprising a lighting device

With respect to claim 9:

- Wherein the lighting device comprises light-emitting diodes as the light-emitting means

With respect to claim 10:

- Wherein the light-emitting means are disposed in immediate proximity to the image capturing unit

With respect to claim 11:

- Wherein the lighting device comprises colored light-emitting means, preferably colored light-emitting diodes

With respect to claim 21:

- Wherein the display is illuminated during image capturing by light having a wavelength of between 450 nm, preferably between 500 nm and 600 nm, preferably of 550 nm

With respect to claim 22:

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- Wherein the display is lit by light beams of a lighting device and the light beams travel substantially along a light path of the image capturing unit

However, Seo teaches:

With respect to claim 8:

- Comprising a lighting device (Column 4, Lines 13-14)

With respect to claim 9:

- Wherein the lighting device comprises light-emitting diodes as the light-emitting means (Column 4, Lines 33-35)

With respect to claim 10:

- Wherein the light-emitting means are disposed in immediate proximity to the image capturing unit (Figure 4 teaches image capture unit (4) is in immediate proximity to led (41))

With respect to claim 11:

- Wherein the lighting device comprises colored light-emitting means, preferably colored light-emitting diodes (Column 4, Lines 33-35 teach using visible light LED's as the light source where it is common knowledge that visible light LED's come in a variety of colors)

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With respect to claim 21:

- Wherein the display is illuminated during image capturing by light having a wavelength of between 450 nm, preferably between 500 nm and 600 nm, preferably of 550 nm (Column 4, Lines 33-35 teach using visible light LED's as the light source, where standard green and yellow LED's have wavelengths of 565 nm and 590 nm respectively)

With respect to claim 22:

- Wherein the display is lit by light beams of a lighting device and the light beams travel substantially along a light path of the image capturing unit (Figure 2 teaches light sources (41 and 91) that travel substantially along a light path of the image capturing unit (4))

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Slatter to include a lighting device in the image capture apparatus, as taught by Seo, to illuminate the reading area (Column 4, Lines 16-20).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slatter et al. EP 0 984 319 A1 in view of Fantone et al. US 6,066,857.

Slatter fails to teach:

With respect to claim 5:

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- Wherein the image capturing unit comprises a focal length that is more than double, preferably more than four times, the size of the maximum diagonal of an image capturing sensor of the image capturing unit

However, Fantone teaches:

With respect to claim 5:

- Wherein the image capturing unit comprises a focal length that is more than double, preferably more than four times, the size of the maximum diagonal of an image capturing sensor of the image capturing unit
(Column 4, Lines 33-35 teaches using a lens with an F/# of 5.6)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Slatter to use a focal length that is more than double the size of the maximum diagonal of a sensor, as taught by Fantone, to increase the imaging area.

5. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slatter et al. EP 0 984 319 A1 in view of Reed et al. US 2002/0168085 A1.

Slatter fails to teach:

With respect to claim 12:

- Comprising at least one optical screen that is disposed outside of a light path of the image capturing unit

With respect to claim 13:

- Wherein the optical screen is disposed between the image fitting surface and the image capturing unit and/or a lighting device

With respect to claim 14:

- Wherein the optical screen comprises a light-absorbing surface and the light-absorbing surface is turned toward the image fitting surface

However, Reed teaches:

With respect to claim 12:

- Comprising at least one optical screen that is disposed outside of a light path of the image capturing unit (Page 4, Paragraph 0053)

With respect to claim 13:

- Wherein the optical screen is disposed between the image fitting surface and the image capturing unit and/or a lighting device (Page 4, Paragraph 0053)

With respect to claim 14:

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- Wherein the optical screen comprises a light-absorbing surface and the light-absorbing surface is turned toward the image fitting surface (Page 4, Paragraph 0053)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Slatter to have an optical screen outside of a light path of the image capturing unit, as taught by Reed, to shield the camera from visible light (Page 4, Paragraph 0053).

6. Claims 18 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slatter et al. EP 0 984 319 A1 in view of Honda US 4,950,072.

Slatter fails to teach:

With respect to claim 18:

- Wherein the positioning device comprises a protection means, preferably a padding, that protects an object placed on the positioning device from damage and that moreover shields, together with the object, the image capturing unit from ambient light

With respect to claim 24:

- For capturing an image from a display, more specifically from an LCD display or from a specular reflecting surface

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With respect to claim 25:

- For capturing an image from a surface that is covered by at least on transparent layer

With respect to claim 26:

- For reading an optical code that is preferably displayed on a display or on a specular reflecting surface

However, Honda teaches:

With respect to claim 18:

- Wherein the positioning device comprises a protection means, preferably a padding, that protects an object placed on the positioning device from damage and that moreover shields, together with the object, the image capturing unit from ambient light (Abstract and Column 3, Line 67 – Column 4, Line 1)

With respect to claim 24:

- For capturing an image from a display, more specifically from an LCD display or from a specular reflecting surface (Abstract)

With respect to claim 25:

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- For capturing an image from a surface that is covered by at least on transparent layer (Column 2, Lines 22-28)

With respect to claim 26:

- For reading an optical code that is preferably displayed on a display or on a specular reflecting surface (Abstract)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Slatter to protect the positioning device, as taught by Honda, to cover the liquid crystal panels to prevent damage (Abstract).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristy A. Haupt whose telephone number is (571) 272-8545. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

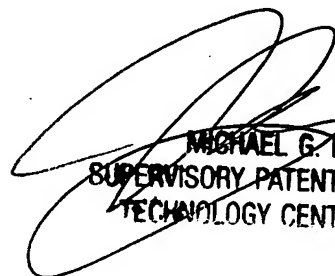
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3/13/07

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